Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-20 (cancelled)

Claim 21 (currently amended) An electrical circuit which constitutes an analog of ~~the~~ an acoustic test cell apparatus employing a periodic high intensity acoustic field, said apparatus comprising:

a chamber encompassing a volume;

means for generating a periodic high-intensity acoustic field within said volume having a frequency and an intensity;

an external source directly coupled to said volume for providing said periodic high intensity acoustic field; and

a tuning port connected to said volume for tuning said frequency of said high intensity acoustic field within said volume to a predetermined frequency and intensity said tuning port being not directly connected with said external source; and wherein:

said ~~test~~ chamber is rigid and airtight;

said acoustic field is continuous; and

said tuner and said volume form a Helmholtz resonator; and wherein said volume further comprises:

an input volume and a test volume, said test volume being acoustically isolated from both said source flow and said input volume and connected to said input volume by said associated tuning port; and

a high acoustic mass means for exhausting air from said input volume to the exterior comprising:

an air flow modulator circuit providing a continuous

field, comprising:

an AC power source providing a voltage source representing a periodically varying gas

pressure source, and

a resistance element representing the flow resistance of a gas flow modulator having said resistance element connected in series with said AC power source;

an input volume circuit in series with said field source, comprising:

an inductance element representing a high acoustic mass in series with a resistance element that represents acoustic losses associated with said acoustic mass,

a capacitance element representing an input volume in parallel with said high acoustic mass, and

a resistance element representing acoustic loss in an input volume in parallel with said input volume;

a tuning port circuit in series with said input volume circuit and comprising:

an inductance element providing a tuning port mass, and

a resistance element representing acoustic loss in a tuning port in series with said inductance element;

a test volume circuit in series with said tuning port circuit and comprising:

a capacitance element representing a test volume, and

a resistance element representing acoustic loss in a test volume in parallel with said capacitance element;

wherein continuous DC current flow is varied periodically by said flow modulator circuit and is directly coupled with said input volume, said input volume is vented by said high acoustic mass and is tuned by said tuning port to produce a predetermined AC voltage representing an acoustic signal in said test volume.

Claim 22 (previously presented) A method for subjecting a test subject to an acoustical field comprising:

supplying a chamber encompassing an input volume and having an inlet;

supplying another chamber encompassing a test volume;

interconnecting said chamber to said another chamber with a tuning port which forms a Helmholtz resonator interconnecting said input volume to said test volume;

positioning the test subject within said test volume; and

applying a periodic acoustic signal <u>having a predetermined driving frequency</u> from an acoustic energy source into said input volume through said inlet to establish an acoustic field in said input volume;

coupling the acoustic field in said input volume to the test volume of said another chamber through ~~the~~ <u>said</u> tuning port which forms a Helmholtz resonator <u>tuned to said predetermined driving frequency</u> whereby a test subject in said test volume is subjected to a <u>resonance amplified</u> periodic acoustical field <u>at said predetermined driving</u> frequency while the test volume is isolated from the acoustic energy source.

Claim 23 (currently amended) A method according to Claim ~~+~~ 22 further including the step of :

exhausting air from said input volume to the exterior of said chamber through a high acoustic mass unit.

Claim 24 (currently amended) A method according to Claim ~~+~~ 22 further including the ~~step~~ steps of:

applying a sequence of periodic acoustic signals at different driving frequencies into said input volume; and

physically adjusting said tuning port to tune the Helmholtz resonator to each of said different driving frequencies to thereby subject the test subject to a resonance amplified periodic acoustic field in said test volume at each of said different driving frequencies.

Claim 25 (currently amended) A method according to Claim ~~+~~ 22 wherein

said acoustic energy source provides a source flow of one of air and gas; and further including the step of:

modulating the source flow.

Claim 26 (previously presented) An acoustical test cell apparatus for subjecting a test subject to an acoustical field comprising:

a chamber encompassing an input volume and having an inlet;

another chamber encompassing a test volume;

a tuning port interconnecting said chamber to said another chamber to form a Helmholtz resonator interconnecting said input volume to said test volume and being tuned to resonate at a particular frequency; and

an acoustic energy source for providing a periodic acoustic signal at said particular frequency into said input volume through said inlet whereby a test subject in said test volume is subjected to a resonance amplified periodic acoustical field at said particular frequency while the test volume is isolated from the acoustic energy source.

Claim 27 (previously presented) The acoustical test cell apparatus of Claim 26 wherein:

the acoustic energy source is capable of providing a periodic acoustical signal at each of different particular frequencies; and

the Helmholtz resonator is ~~tuned~~ physically tunable to each of said different particular frequencies to amplify the intensity of the acoustic field in said test volume to thereby subject the test subject to a high intensity acoustic field at each of said different particular frequencies.

Claim 28 (previously presented) The acoustical test cell apparatus of Claim 27 wherein:

said tuning port has a variable geometry for setting the tuning of the Helmholtz resonator.

Claim 29 (previously presented) The acoustical test cell apparatus of Claim 27 wherein:

said chamber has an outlet; and further including

an exhaust means having a high acoustic mass at said outlet for exhausting air from said input volume to the chamber exterior.

Claim 30 (previously presented) The acoustical test cell apparatus of Claim 29 wherein:

said exhaust means is an elongated, small-aperture duct proportioned to only pass acoustic energy at frequencies below the frequency of said acoustic energy source.

Claim 31 (currently amended) The acoustical test cell apparatus of Claim 30 wherein:

said ~~acoustical~~ acoustic energy source provides a compressed air flow; and further including a flow modulator for regulating the flow into the input volume of said chamber.

Claim 32 (previously presented) The acoustical test cell apparatus of Claim 31 wherein:

said another chamber further includes a low-volume positive-pressure ventilating air input having a high acoustic mass.